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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,236

03/11/2004

Lester D. Westbrook

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08/20/2004

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EXAMINER

PHAN, HANH

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/799,236	WESTBROOK ET AL.	
	Examiner	Art Unit	
	Hanh Phan	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,12 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,12 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In claim 14, lines 13-14, the phrase **"wherein said electro-absorption modulator functions simultaneously and at the same DC operating bias conditions to produce said output optical and electrical signals"** should be deleted because this phrase is repeated two times (see lines 11-12 of claim 14).
Correction is required.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 11 and 12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-24 of U.S. Patent No. 6,525,855 (Westbrook et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the

limitations recited in claims 11 and 12 of the instant application are encompassed by claims 1-24 of U.S. Patent No. 6,525,855 (Westbrook et al).

Regarding claim 11, Westbrook et al. (US Patent No. 6,525,855) discloses an optical communications network includes a remote terminal characterized in that said terminal comprises an electro-absorption modulator that

detects an incoming optical signal from a first portion of the optical communications network while simultaneously

modulating said incoming optical signal, said optical signal being transmitted to a further portion of the optical communications network (see claims 1, 7 and 23 of US Patent No. 6,525,855).

Regarding claim 12, Westbrook et al. (US Patent No. 6,525,855) discloses the optical communications network uses a frequency division multiplexing system (see claims 13, 14 and 16 of US Patent No. 6,525,855).

4. Claims 11, 12 and 14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,731,880 (Westbrook et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 11, 12 and 14 of the instant application are encompassed by claims 1-15 of U.S. Patent No. 6,731,880 (Westbrook et al).

Regarding claim 11, Westbrook et al. (US Patent No. 6,731,880) discloses an optical communications network includes a remote terminal characterized in that said terminal comprises an electro-absorption modulator that

detects an incoming optical signal from a first portion of the optical communications network while simultaneously

modulating said incoming optical signal, said optical signal being transmitted to a further portion of the optical communications network (see claims 1 and 13 of US Patent No. 6,731,880).

Regarding claim 12, Westbrook et al. (US Patent No. 6,731,880) discloses the optical communications network uses a frequency division multiplexing system (see claims 1 and 13 of US Patent No. 6,731,880).

Regarding claim 14, Westbrook et al. (US Patent No. 6,731,880) discloses a bi-directional optical-electrical signal transducer comprising:

an electro-absorption modulator having optical signal input and output ports and an electrical signal input/output port, whereby:

first information-bearing optical signals presented to said optical signal input port produce corresponding first information-bearing electrical signals at said electrical signal input/output port, and

second information-bearing electrical signals presented to said electrical signal input/output port produce corresponding second information bearing optical signals modulated onto an optical signal at said optical signal output port wherein said electro-absorption modulator functions simultaneously and at the same DC operating bias conditions to produce said output optical and electrical signals (see claim 13 of US Patent No. 6,731,880).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heidemann (US Patent No. 5,251,053 cited by applicant) in view Bottka et al (US Patent No. 3,976,873 cited by applicant).

Regarding claim 11, referring to figures 4 and 5, Heidemann discloses an optical communications network includes a remote terminal (i.e., radio receiving station 40, Fig. 4) characterized in that the terminal (i.e., radio receiving station 40, Fig. 4) comprises a modulator 9 i.e., optical modulator 43, Fig. 4) that

detects an incoming optical signal (i.e., an incoming optical signal V'_0 , Fig. 4) from a first portion of the optical communications network while simultaneously modulating the incoming optical signal (i.e., an incoming optical signal V'_0 , Fig. 4), the optical signal being transmitted to a further portion of the optical communications network (col. 8, lines 1-55 and col. 9, lines 32-50).

Heidemann differs from claim 11 in that he does not specifically teach the optical modulator is an electro-absorption modulator. However, Bottka in US Patent 3,976,873 teaches the optical modulator is an electro-absorption modulator (see from col. 1, line 40 through col. 3, line 50). Therefore, it would

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have been obvious to one having skill in the art at the time the invention was made to incorporate the optical modulator is an electro-absorption modulator as taught by Bottka in the system of Heidemann. One of ordinary skill in the art would have been motivated to do this since Bottka suggests in column 1, lines 4-67 and col. 2, lines 1-60 that using such an electro-absorption modulator has advantage of allowing providing an optical modulator for detecting and modulating the signal, simplifying the circuitry and reducing the cost of the whole system.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heidemann (US Patent No. 5,251,053 cited by applicant) in view Bottka et al (US Patent No. 3,976,873 cited by applicant) and further in view of Tang (US Patent No. 5,339,184).

Regarding claim 12, the combination of Heidemann and Bottka differs from claim 12 in the it does not specifically teach the optical communications network uses a frequency division multiplexing system. However, Tang in US Patent No. 5,339,184 teaches the optical communications network uses a frequency division multiplexing system (Fig. 2, col. 3, lines 56-67 and col. 4, lines 1-55). Therefore, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the optical communications network uses a frequency division multiplexing system as taught by Tang in the system of the combination of Heidemann and Bottka. One of ordinary skill in the art would have been motivated to do this since Tang suggests in column 3, lines 56-67 and

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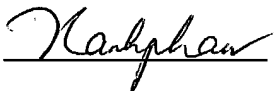
col. 4, lines 1-55 that using such the optical communications network uses a frequency division multiplexing system have advantage of allowing providing an optical communication system with high speed and high capacity.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.



Hanh Phan

08/18/2004